April 2004 EB 2004-06

SMART Marketing

A Compilation of *Smart Marketing* Articles November 2001 - November 2003

Edited by
Wen-fei Uva

Department of Applied Economics and Management
College of Agriculture and Life Sciences
Cornell University
Ithaca, NY 14853-7801

Publication price per copy: $5.00

For additional copies, contact:

Wen-fei Uva
Dept. of Applied Economics and Management
307 Warren Hall
Cornell University
Ithaca, NY 14853-7801

E-mail: WL32@cornell.edu
FAX: 607-255-9984
Phone: 607-255-3688

TABLE OF CONTENTS

"*Smart Marketing*" is a monthly marketing newsletter developed for extension publication in local newsletters and for placement in local media. It reviews the elements critical to successful marketing in the food and agricultural industry. This series is coordinated by Wen-fei Uva and Brian Henehan, and articles are written by the faculty members in the Department of Applied Economics and Management at Cornell University.

Special appreciation is expressed to colleagues in the Department of Applied Economics and Management at Cornell University for contributing articles to the series. All *Smart Marketing* articles can be found at *http://hortmgt.aem.cornell.edu/smart_marketing/index.htm*, including past articles from February 1988 through April 2004.

October 2002

Getting Started in Farming? Five Keys to Success

Steve Richards
Director, NY FarmLink

Do you want to operate a farm someday? FarmLink helps establish connections between current farm owners and those wanting to start farming. However, this is only the first step in getting started. Of all the farm "seekers" in the FarmLink database, only 2 out of every 10 may be successful getting started each year. Successful new farmers differ from their counterparts due to these common traits:

1. **Experience: Successful farm start-ups have 3-10 years of farm experience.**
   - Nothing substitutes for real-world experience on the farm. If you don't have a lot of experience, try volunteering or working on a farm.
   - These days, it takes a good farm manager to keep the farm running and supporting a family. Try to gain management experience!

2. **Equity: It always helps to have the ability to invest in a farm opportunity!**
   - Livestock, equipment, and cash (of course) improve your chances of getting a loan in order to get started.
   - If you or your spouse have an outside job, it helps with the cash flow. You may not want to quit your outside jobs immediately — give the farm situation a try first.

3. **Education: Farming requires business savvy and technical skills!**
   - Business management education will go a long way to improve your chances of success.
   - Do you already have all the technical knowledge necessary? If you are starting from scratch, chances are you need some farm education.

4. **A Business Plan: A clear plan of how to take advantage of the current business environment and how to allocate your resources.**
   - Summarizes a business opportunity and how you are going to seize it!
   - Primarily used for raising capital and as a means for guiding business growth.

5. **A Marketing Plan: What you will sell and how you are going to sell it.**
   In most businesses, a marketing plan is the most critical piece of the start-up pie. However, it is often the most overlooked piece of the puzzle when getting started. New farm operators are sometimes loath to make marketing plans a part of their start-up efforts. If you are starting a new farm operation, take the time to prepare a marketing plan — it may be the difference between success and failure.

What type of farm do you want to start?

This may influence what should be emphasized in your marketing plan. Although all "4 Ps" of a marketing plan need to be addressed by all farms, it is my observation that a direct marketer has different marketing challenges than a wholesale marketer. The direct marketer has more problems with the first two Ps **product** and **pricing**. The wholesale marketer has more problems with the last two Ps **promotion** and **placement**.

Direct Marketers: product and pricing concerns

Direct marketing operations have problems deciding what products will sell the best. Given that many raised farm products have to be planned at least 3-4 months in advance, this poses a logistical challenge. You must grow something that your customers want! Give them a reason to buy your product. Don't just grow something and then try to figure out how to sell it.

Pricing is also a challenge. The most common mistake of first-time direct marketers is pricing their products too low. Often, new marketers just look at what it cost them to grow the particular product and leave out the overhead expenses. With small businesses, the overhead expenses are often a higher proportion of the total cost of production! Warren Abbott, of Abbott Farms in Syracuse, uses the snow plow example: a young fellow purchases a snow plow, charges $10 a driveway and thinks he is making a lot of money—until the truck breaks down. He then realizes he hasn't considered truck repairs, insurance or truck payments into his $10 price! He goes out of business eventually; but there are always more new snow plowing businesses starting every year.

Wholesale Marketers: promotion and placement concerns

Wholesalers are often commodity producers (similar products as a lot of other farmers) and price takers (take the price that the "middleman" gives them). Given that wholesalers have little control over product and price, this makes promotion and distribution that much more important. Successful promotion strategies for wholesalers concentrate on promoting quality differences and adding services to their product. Distribution strategies such as adding a retail outlet and identifying new markets/buyers have also proved to be important keys to success.

*** For more information**:
Read "Developing a Strategic Marketing Plan" by Gerald White and Wen-fei Uva. Available by writing to: Publications, Applied Economics and Management, Cornell University, Ithaca NY 14853. **If you have questions about getting started in farming, contact NY FarmLink at 1-800-547-3276.**

August 2003

Growing for Profit -- Managing Crop Mix According to the Market

Wen-fei Uva
Senior Extension Associate
Horticultural Product Marketing

There are no magic answers for running a profitable horticulture business. Everything you do in business must start with a "marketing philosophy" to MEET YOUR CUSTOMERS' NEEDS, not merely to sell products. Making cropping decisions plays an important role in carrying out this marketing philosophy, and you should not be simply growing what you grew last year. Your crop mix is the primary vehicle by which to transform your marketing opportunity into customer loyalty, growth in sales and, most importantly, profits. However, the process can be complex. There are more varieties than ever for growers to choose from. Today, growers can find more than 30 varieties of tomatoes in seed catalogs and choose from more than 80 poinsettia varieties in many shades and patterns. The key is to keep focused on the opportunities, select new products, and be willing to change your product lines to develop the sales and profits these opportunities offer.

Knowing the Trends

Knowing industry trends is the first step to identifying opportunities in the market. The market for horticultural products is becoming more diversified. Increasingly, consumers are buying more of their basics from discount merchandisers for the competitive prices. Nonetheless, more consumers are also willing to pay higher prices for desired services and product features – quality, uniqueness, convenience, locally grown, organic, etc. For instance, while competition from mass marketers is intense, sales of more expensive options, such as bigger perennials, potted annuals, antique or unusual fruit and vegetable varieties, or branded products, are stronger than ever with independent garden centers and farm markets. Knowing market trends will help you segment your customer base and decide how to satisfy their needs and wants.

Develop a Process

What does all this mean to growers when selecting crops to grow for the coming season? Selling customers what they want to buy is an easier task than selling customers what you grow. Your production plan - what you plant, when you grow, and how you merchandise - must be a process of identifying: (1) who your customers are (discount chains, independent retailers, or consumers; (2) your customers' needs; (3)an intuitive understanding of what your customers might need and buy if it were available to them; plus (4) which of the identified crops you can grow. This is an entirely different marketing philosophy than growing what you like or what you prefer to grow and trying to sell them.

The Product Portfolio

Your product mix is like an investment portfolio. As you study your investments and the returns they bring, you often transfer one investment to another, or you increase the amount of investments by adding new investments to manage the portfolio for optimum returns. The same principles apply to managing your product mix. One solution to guarantee profitability is to know your costs and be able to set the selling price to generate a profit. However, today's growers are often faced with the reverse in some market sectors. The large retail chain buyers often set a price they'll pay, and growers must figure out how to produce the product at that price for a profit.

Moreover, growers often need to carry a broad product line including some unprofitable products to remain an attractive supplier to big chain buyers or to become a destination site for retail shoppers. Therefore, if a low-margin product is important to the product mix, it needs to be evaluated to see if it can be purchased less expensively than you can grow it. If so, that might be a good option for you. It is important to know the profit margin of each product and to optimize your return by selecting a good balance between low-margin or unprofitable but highly desirable crops and high-margin crops to satisfy your customers' needs. You should not carry the product mix if you cannot sell it at a reasonable margin. Remember, sales generating zero margins cannot offer you any profit no matter how much more you sell.

Knowing the Competition

Finally, it is becoming more important to keep tabs on your competition to stay ahead. If you offer only what your competitor offers, there is little reason for a customer to deal with you unless you have the lowest price. In today's economy, positioning your business as the low-price leader is a vulnerable competitive position. As you plan your crop mix for the coming season, remember that you can't carry everything for everybody. Knowing what your target market wants and providing a mix of crops and services that will differentiate you from your competitors will ensure that you are growing for profit.

October 2003

Positioning Your Product in Today's "Supply Chain"

Brian Henehan
Senior Extension Associate
Agricultural Cooperatives

Most of us have heard of the term "Supply Chain". It describes the set of links required in any industry to move products from raw product suppliers through various intermediaries to the end user or consumer. Unless a producer is marketing directly to consumers, they participate in a supply chain.

In the context of the food and agricultural industry, the supply chain typically includes the following links starting at the farm level:

from ***Producers*** ➔ ***assembling*** ➔ ***processing*** ➔ ***distributing*** ➔ ***marketing*** ➔ to ***Consumers***

This supply chain starts at the farm followed by a number of key links required to connect with consumers. Farm products usually need to be assembled at a site where raw products can be: stored, graded, or prepared for further processing. Following assembly of an adequate volume of product, the next link involves processing to transform the product into a more marketable form. The next link involves transportation to where products enter various market channels for distribution to retail or food service establishments. The final link is the marketing of products to consumers or end users.

Producers may tend to focus on the dramatic changes occurring at the production level. However, significant change is constantly occurring within each of these links in the food supply chain. Increasing concentration and collaboration of retail and food service firms continues to place economic pressure on all links in the chain. There is an intense focus on supply chain management requiring all suppliers to cut costs and better serve buyers.

Given the importance that each link plays in moving farm products to consumers, smart marketers should be thinking more about how to best position their products in today's rapidly changing supply chains. Here are eight questions that might be useful in developing strategies to better understand and address supply chain challenges.

1. What are the links required to move my products from the farm to consumers?

2. How do each of those links operate and what recent changes have occurred that affect my products?

3. What are the costs associated with marketing my farm products for each relevant link? (assembly, processing, distribution, marketing, etc.)

4. How do I maintain a high level of quality for my products throughout the supply chain?

5. How do I maintain effective business relationships with all the players involved in moving my products throughout the chain and become a preferred supplier?

6. What services can I offer to cut costs or improve quality in the supply chain?

7. How can I work with buyers operating in other links to create more demand for my products with consumers? (advertising, promotion, etc.)

8. Can I find creative ways to collaborate with other producers or players in the supply chain to better position my products?

There is a tremendous amount of data and information available on how the supply chain operates in today's food industry. Understanding and better positioning your farm products in today's supply chain are key elements of smart marketing.

August 2002

Marketing Services

Wen-fei Uva
Senior Extension Associate
Horticultural Product Marketing

Service is becoming more important in the business of agriculture for value adding as well as customer satisfaction. Increases in consumer disposable income and discretionary buying power, emphasis on leisure time, having less time to do it are all positive trends for marketing services.

In concept, marketing goods and marketing services are essentially the same. In each case, you, the marketer, must select and analyze the target markets. Then a marketing program must be built around the 4 Ps of marketing – the Product (goods or services), the Price structure, the Place (distribution or delivery system), and the Promotional program. However, some distinct characteristics that differentiate services from goods often create special challenges and opportunities for marketing services. Therefore, the strategies and tactics used in conventional goods marketing frequently are inappropriate for services marketing, and it typically leads to a quite different marketing program.

Services are Intangible

It is impossible for customers to sample taste, feel, see, hear, or smell services before they buy. Therefore, your promotion must portray the benefits to be derived from your services, rather than emphasizing the service itself. Some promotional strategies you can use to suggest service benefits and make your service tangible in customers' minds are:

1. *Visualization*: For example, you can depict the benefits of your service by showing people relaxing in their beautiful garden, having a great cookout with their friends and family using the fresh produce they just bought from you, or using your service to free up time for something more "fun" or "important" to them.

2. *Association*: Connect your service with a tangible good, person, object, or place. Many businesses use spokespersons to promote and build confidence in their businesses. You can establish your business as an expert in the field by making yourself or someone from your business available to answer questions for the media, donate your service for a popular public area or event in your town, or sponsor programs with local organizations.

3. *Physical representation*: For an agricultural business, your store, staff, equipment and vehicles are the physical items people see. Creating a distinctive logo to be displayed on everything representing your business, dressing your employees in clean, distinctive uniforms to stress visibility and dependability, keeping your equipment and vehicles clean, and creating a display to demonstrate your expertise are things you can do to establish a good image in customers' minds.

4. *Documentation*: Many companies cite facts and figures in their ads to support claims of quality, dependability and performance. Do not be shy about celebrating your history, heritage, awards and customer testimony.

Service Typically Cannot be Separated from the Creator-Seller of the Service

Production and marketing of services are often performed simultaneously. Customers' opinions regarding a service frequently are formed through interaction with a business's contact personnel and impressions of the physical surroundings. Therefore, building personal relationships and trust with customers is vital for marketing service. Too often, the contact personnel, your staff, think of themselves as producers of a task rather than marketers of a service. Training your employees to interact with customers and be knowledgeable, courteous and willing to go the extra mile to answer customer s' needs is very important.

Services are Impossible to Standardize

Because the final product of a service depends on the person who performs the service, each "unit" of the service is somewhat different from other "units" of the same service. However, to build trust in the company, customers need consistency. Therefore, you should pay special attention to product planning when marketing services. You must do all you can to build a protocol for performing service tasks. It is imperative to maintain consistent service quality at or above the level of consumer expectations. More importantly, quality is defined by the consumer, not by the producer-seller of a service.

Services are Highly Perishable and Cannot be Stored, and the Demand for Services Often Fluctuates Considerably by Season

The combination of perishability and fluctuating demand presents many challenges to market services. Keeping your presence in front of customers during your off-season will help you market your services later on. Developing new uses for idle capacity of your facility during the off-season, providing newsletters to deliver information throughout the year, and offering special services or events to your best customers, can even out cash flow and improve customer retention. Make it easy for customers to learn about your services. For example, offer no-cost evaluation for a service, use internet and other convenient locations to provide information, arrange tie-in sales with other local businesses.

Customer for Life

Trends carry considerable influence in the marketing of services. Sociological factors of social-class structure and small-group influences are very important market determinants for services. Thus, service marketing can benefit significantly from indirect types of promotion such as publicity (newspapers, radio, and television) and community involvement.

Moreover, among all the promotional activities used in services marketing, personal selling plays the dominant role. Any employee who comes into contact with a customer is part of your marketing force. A crucial step to successfully marketing services is to provide sales and marketing training for all of your personnel and impress upon them the importance of their roles in marketing. Your employees need to be good at what they do with land, plant/animal, and with people as well. Customers are not just buying the service, they are buying the benefits from your service, such as having a garden to enjoy, saving time, providing their family good nutrition, and having a good experience. Moreover, consumers want reliability, responsiveness, assurance, and empathy from your business, including everyone on your staff. If you can deliver that, you have the customer for life.

December 2002

The Role of Price

Bruce Anderson
Associate Professor
Agricultural Cooperatives

As U.S. agricultural industries become more market oriented, it is appropriate to step back and examine the role of price. Price serves several functions, and it is difficult if not impossible to separate each role. More important, the new role of price has major implications on the way farmers and growers manage their operations.

The Four Roles of Prices

First, price provides income. Price times the quantity sold results in the total income from a commodity. When trying to get a higher price,either through better marketing or government programs, it is this aspect of price which most farmers are concerned about.

Second, price determines the quantity supplied and consumed. As prices increase, more will be supplied and less consumed. The opposite is true as prices decrease. In this role, price regulates the quantity available and consumed. As agricultural industries become more market oriented, increased emphasis is placed on this role of price. Less emphasis is placed on price as only a provider of income, as the 2002 Farm Bill may stimulate more supply that consumers are demanding.

Third, price serves a signal. Especially through price incentives (premiums) and disincentives (discounts) it communicates information to provide more or less of a product, service or qualitative feature. For example, a higher price for a certain variety of sweet corn, higher protein in milk, or a specific level of sugar in grapes is designed to signal producers that these features are what processors want and consumers are willing to pay for. Farmers and growers can expect more of these types of incentives and disincentives as agricultural industries become more market oriented. Why? Because it is an efficient way to communicate to producers what consumers and processors want and need.

Finally, price transfers ownership. Once you pay the price, you are the new owner of that product, tractor or plot of land.

Costs of Production

One issue farmers and growers are always concerned about is the relationship between prices and the costs of production. Costs of production can be an ambiguous concept. There is no such thing as a single cost of production, or, for that matter, market price. For example, costs of production for any given commodity probably vary by 30 percent or more from farm to farm. In other words, there are always some producers with costs of production higher than the price, no matter what that price is. And the funny thing is that when price goes up, cost of production typically increases as well. The key is to make every attempt to be a "low cost producer", especially in commodity industries like agriculture.

In a market-oriented environment, at any given point in time the role of price has little to do with the costs of production. Sometimes prices will significantly exceed the costs of production, and at other times prices will be lower than costs. Does this make sense? Yes, when price is used to communicate market information about consumer and processor wants, instead of just trying to use price to provide producers a stable income with little concern about surpluses. However, over time price should be sufficient to cover the costs of production of the survivors.

Strategies for Farmers and Growers

The changing role of prices means farmers and growers must also change their strategies. What are some of the changes required?

First, be prepared for greater price swings. This implies one must use more equity financing and less debt financing. Equity is an essential cushion to weather fluctuations in prices.

Second, strive to be a "low cost producer". Know your costs and that of other producers of your commodity. Cooperative Extension and several commercial firms can help you in this effort. Also, continue to identify new ways to maintain a competitive cost advantage.

Third, be cautious in reacting to short-term price changes, both on the up side and the down side. For example, one should be skeptical of the reaction to expand operations based on an extremely attractive short-term price. When analyzing such alternatives, make sure you also budget for "average" and "worst" price case scenarios. Those are the prices you may experience when added production eventually comes on line.

Fourth, seek out market outlets that are providing price incentives for specific product features. However, this usually means there are also disincentives for delivering undesirable product features. In addition, work with processors and other buyers to identify qualitative characteristics and services customers are willing to pay for. That is the simplest way to find and create your own market niche. For example, today organic production receives an attractive premium in many commodities, plus demand for organic products is increasing rapidly. But remember, it always costs more to produce and deliver those added product features or services. However, if done correctly the added revenues should more than cover the added costs.

Summary

There is a tendency for some farmers and growers to long for a return to "the good ol' days" and to resist the new roles of price. However, there is little indication that those good ol' days will return anytime soon, if ever.

The alternative is to acknowledge the new role of price, and adjust one's operations according. Producers who accept the changes and adopt appropriate strategies are those who are most likely to survive and benefit from this new environment.

Some Facts and Myths About "Eliminating the Middleman"

Brian Henehan
Senior Extension Associate
Agricultural Cooperatives

In agricultural producer circles one often hears the comment "If we could just eliminate the middleman" we could lay claim to all the profits being extracted by them from producer's pockets. In some cases there may, indeed, be opportunities to operate further up the supply chain and reap financial rewards. But in many cases, the so-called middleman (or woman) may be performing valuable services on behalf of producers that are essential to successful marketing.

On the factual side, in production agriculture we typically have to assemble an adequate volume of raw product and convert it into a more marketable form. These assembly costs can include transportation of farm products from the farm to an assembly point where products may be stored, graded, or converted into a more marketable form. From that or other assembly points additional marketing and distribution functions may need to be accomplished such as managing inventory, filling orders, transporting products to customers, or providing other related customer services. In many cases, middlemen or intermediaries accomplish these assembly and distribution functions.

Some of the myths associated with "eliminating the middleman" can include:

- *Myth:* There are "too many" middlemen operating in the food and agriculture system.

  Fact: The number of middlemen or intermediaries is shrinking dramatically as the structure of the food and agriculture system changes. Major customers are requiring their producer-suppliers to perform many of the services previously accomplished by middlemen. This fact may be detrimental to small- to mid-sized producers in maintaining their access to important customers.

- *Myth:* If we simply eliminated the middlemen, we would automatically make more money.

  Fact: Producers attempting to accomplish all of the assembly and distribution functions otherwise performed by intermediaries will need to bear that cost themselves. In some cases, producers may be able to perform those functions profitably but in many cases the actual costs of assembly and distribution are underestimated by producers, resulting in losses.

- *Myth:* A confrontational or adversarial relationship is the only way to effectively deal with middlemen.

Fact: More producers are figuring out ways to build fair, working relations with intermediaries for their mutual benefit. Doing business with a middleman who effectively adds value to your product ensuring what your mutual customers want can result in a "win-win" outcome.

Smart marketers strive to understand all of the costs associated with putting their product in a form the customer wants, as well as distributing it to the locations where and when their product is needed. This is easier said than done in today's changing economy but essential for profitable operations.

Some producers may be in a position to accomplish all of the necessary assembly and distribution functions themselves or as a group. However, for others not in that position, eliminating "middlemen" may not be as desirable at first glance as producers might think, unless they can accomplish all of those functions at a lower cost than those individuals or firms who performed those assembly and distribution activities on their behalf.

Who is Reacting to the Food Industry's Generic Advertising Messages?

Harry Kaiser and Todd Schmit
Professor and Research Associate
Cornell Commodity Promotion Research Program

Since 1984, U.S. dairy producers and milk processors have contributed more than $300 million annually to promotions, with a relatively large share committed to generic advertising programs. Hence, it is very important for farmers, processors, and policy makers to understand the economic impact of generic advertising.

This article reports the results of a recent study that used household-level data to analyze the impact that generic advertising has on the demand for dairy products, including its effect on the likelihood of purchase and levels of consumption. This is particularly important when evaluating advertising programs to determine to whom – new or current consumers – the message has been successfully delivered.

Purchasing data for fluid milk and cheese for home consumption and annual household demographic data were obtained from the ACNielsen Homescan Panel sample of U.S. households from January 1996 through December 1999. Fluid milk was divided into four sub-categories: whole, reduced fat (2%), light (0.5%-1%), and skim milk. Cheese was divided into American, Mozzarella, Processed, and Other cheese categories. The Other cheese category contains several varieties, including Ricotta, Muenster, Farmers, brick, and cream cheese.

The effects of numerous factors on the demand for dairy products are considered in this study. Product price, household income, household size, and generic advertising are the basic factors analyzed. Because price often varies due to volume and store discounts, we include variables that reflect the proportion of purchases in various package sizes and store types, and the proportion of units sold. Variables used to reflect differences in household composition are age of the household head, whether mom works outside of the home, and the proportion of family members by age classification. The study also analyzes these data with regard to race, education, geographic location, and seasonality.

Since the focus here is on advertising, only the advertising impacts are reported. The generic milk advertising message appears to have a predominant effect on levels of consumption of fluid milk. Generic milk advertising had a positive and significant impact for all fluid milk products. The results of our analysis showed that, for total fluid milk, a 10% increase in advertising has a slightly less than 1% (0.81%) increase in household demand for milk. Of that increase, 88% can be attributed to increasing the demand for milk from current consumers, while only 12% can be attributed to increasing the likelihood of new households to purchase fluid milk. This is consistent across all fluid milk categories, with the largest response from the generic campaign shown for reduced fat (0.81%) and skim milk (0.82%), followed closely by whole (0.74%) and light milk (0.72%).

While the effect was positive and significant from generic advertising in the total cheese category, the effectiveness of the generic cheese advertising campaign appears lower than that estimated for fluid milk. The total cheese category had a 0.24% increase in household demand for cheese with a 10% increase in cheese advertising. However, the entire amount of this was realized from the likelihood of households to purchase cheese. That is, cheese advertising appears to be effective at increasing the probability of new consumers to purchase cheese, but has no significant effect on increasing the demand of current consumers. This is consistent across all cheese. The largest contributors to the total cheese result were from the Other cheese category (0.69%) and American cheese (0.63%), while the Processed (0.21%) and Mozzarella (0.21%) advertising effects were more similar in magnitude to that of the aggregate product. It is interesting that while both programs are generic and do not target any specific products, the generic advertising effects on individual product are more variable for the relatively differentiated cheese categories, but are much more similar for the relatively homogeneous milk products.

From the wide disparity in advertising response, it is clear that the fluid milk and cheese generic advertising campaigns are inducing response from different types of consumers. While fluid milk advertising seems most effective at increasing the demand of current consumers, its effect on new buyers is less pronounced. Conversely, the effect that cheese advertising has had on total household demand is clearly from the response of new buyers to the market or from increasing the likelihood of purchase for U.S. households, not from increasing the consumption of current consumers. This type of information could provide valuable information to dairy product marketers in determining where past efforts have been most effective and to all agricultural product marketers in developing future advertising strategies with respect to their target audience.

Assuring Produce Safety: A Key Industry Marketing Strategy

Sandra Cuellar
Extension Associate, Food Industry Management Program

**This article is part of the 2001 Fresh Track Study by the Food Industry Management Program at Cornell University developed for the Produce Marketing Association.*

Changing lifestyles and a growing interest for fresh, ready to eat, nutritious food among consumers has brought produce to the forefront of the U.S. retail industry, with continuously increasing sales and profits. As a result, food retailers are using the produce department as a way to differentiate themselves from competition, focusing significant efforts to increase the variety, quality, and availability of the produce products offered for sale. According to a recent study conducted by the Food Marketing Institute (FMI), "95% of U.S. consumers surveyed are completely or mostly confident that the food in their supermarkets is safe." This result reflects the moral and social responsibilities implied for food retailers in the U.S. and highlights the importance for the whole food supply chain to assure that produce is safe and wholesome.

Along with the increasing consumption of fresh fruits and vegetables in the U.S., scientists in the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia noticed that between 1973 and 1998, there was a steadily increasing trend in the number of food-borne outbreaks associated with fresh fruits and vegetables. Among the main products involved in such events during the past decade are sprouts, lettuce, cantaloupes, watermelons, tomatoes, strawberries, raspberries, scallions, basil, and parsley. The most commonly involved pathogens have been several strains of *Salmonella*, *E Coli* O157:H7, *Hepatitis A*, *Cyclospora cayetanensis*, *Shigella sonnei*, *Staphylococcus aureus*, *Campylobacter jejuni,* and *Clostridiuym botulinum*. The occurrence of food-borne illness outbreaks can mean irreparable damage to a business, both from the legal point of view as well as from the negative impact on its brand and company reputation.

Currently, there are no mandatory rules for the safe growing and packing of fruits and vegetables, except for those regulating water and pesticide residues under the surveillance of EPA. In October 1998, FDA rolled out the *"Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables,"* comprising a set of Good Agricultural Practices (GAPs). Although, it is currently optional, many in the produce industry are incorporating these practices into their operations as quickly as possible, in an effort to preempt the possibility of stringent regulations by FDA.

Keeping produce safe is no easy task. There are many opportunities where fresh fruits and vegetables can be contaminated on their way from field to table. In the field, produce can be contaminated through soil, water, and pests and, very importantly, by inadequate or mishandled chemicals (i.e. pesticides). During harvesting, the major risk of contamination comes from handling by workers who may be the carriers of pathogens. During packing of fresh produce, the risks lie with contaminated packaging equipment and supplies, especially while processing and packaging of pre-cut products which involves several safety hazard points. Distribution of produce in trucks, which might be contaminated from previous cargoes or due to lack of temperature controls in them, also represents a major threat to produce safety. At retail, storage of produce, handling by employees for display, as well as handling by consumers, all represent important risks of contamination. Finally, though not necessarily less important, mishandling of produce by consumers and the chance of cross contamination of the products at home are yet other hazards to the safety of produce. It is clear, then, that there are specific responsibilities in keeping produce safe at each stage along the supply chain.

The confidence that consumers have in their supermarkets along with the new incidence of food-borne illnesses caused by tainted produce in the United States may explain recent food safety requests from retailers. Some of the major supermarket chains, and foodservice operators as well, now require suppliers to not only follow the GAP's guidelines but also to obtain third-party audits as a prerequisite for doing business. These new demands have created a great deal of controversy in the industry. While some see third-party audits as a way to raise the quality and safety of produce and a training tool to build a food safety program, others view them as an excessive and costly method, mainly geared to limit retailers' liabilities but not necessarily resulting in increased safety. A major consideration of third-party audits is their cost. They range from tens of thousands to a few hundred thousand dollars, a cost exclusively absorbed by the growers. This can be difficult or even impossible for small growers to afford, eventually driving them out of the market.

Interestingly, some major supermarket organizations are looking at produce safety from a system-wide management approach, where all parties involved in the supply chain acknowledge their responsibilities. In this approach, knowing your business partners and the relationship you have with them becomes the key. This approach to produce safety may prove particularly challenging under the present circumstances of consolidation where long-term vendor-buyer relationships have been eroding, and no clear future trend in this respect is yet defined. On the other hand, it may prove a new buyer-seller paradigm could be a key mechanism in developing such collaboration throughout the produce supply chain. One example is that some producers in California have established a "university" concept whereby they can lavish their hospitality upon their buyers in the form, often, of entertainment, while in serious seminars, educating them on the special nature and opportunities with their particular commodity. Such buying "visits" to shipping points(s) generally result in a better understanding of the vendor's typical dilemmas by the buyer and ,ideally, improve collaboration and coordination system wide.

As there is no single clear-cut solution to assuring produce safety thus far, it is evident that the produce industry needs to develop creative cost-efficient procedures with which it can address the hazards involved at the different stages along the distribution channel. Perhaps making use of innovative technologies, developing new schemes of collaboration among its members, and even providing information to consumers will bring about an industry-wide proposition and allow the industry to ensure the safety of its products while fulfilling the expectations of its customers for high quality and good value.

January 2002

Do Consumers Matter?

Robert Milligan
Professor

"Whatever color you want, as long as it is black." You have probably heard that famous statement from Henry Ford about the Model "T" Ford. The Model T was immensely successful!!!!

Do you think a car manufacturer would be successful today with that attitude? Of course not! Today cars come in untold combinations of sizes, colors, trims, etc. What is the difference between the Model T and today?

The simple answer is that the Model T was produced in a producer-driven economy and today we are in a consumer-driven economy. This change occurred in the middle of the twentieth century. After the end of the Second World War, the producer-driven economy probably reached its peak. Consumers had money, and goods were scarce due to the demands of producing for the war effort. Whatever was produced was purchased.

Within a few years, however, consumers still had unprecedented levels of income, and as production caught up with demand, they started to exercise more choice. They began to "vote" with their pocketbooks. As the economy continued strong in the 1950s and 1960s, we moved more and more into a consumer-driven economy.

In the same period, Dr. W. Edwards Deming introduced Total Quality Management (TQM). Some have suggested that TQM was the single most important development of the twentieth century. TQM transformed how quality is managed, it led to the modern employee empowerment movement and it altered how the consumer is viewed.

The first two principles of TQM are that the consumer defines value and the producer adds value.

Let's look at how this impacts cars. Henry Ford looked at his Model T as simply a car. When he produced it at a very low price, almost everyone bought one. Today the automakers must look at a car through the eyes of the consumer; they look at attributes including price, status, fuel economy (including environmental perspectives), color, and comfort.

They are seeking to determine what the customer will pay for. The customer decides what they will purchase. The customer, therefore, determines value!!! Producing this value is then an opportunity for the automobile manufacturer. The profitability of automobile companies is determined by how successful they are in producing what the customer values, producing the attributes the customer will pay for.

Let's apply this same analysis to agricultural products. Using milk as an example, the equivalent of "whatever color you want as long as it is black" was "however you would like your milk as long as it has 3.5 percent butterfat." Just as cars have changed so have dairy products. We now have multiple fat levels, calcium added, flavored milk, yogurt, untold types of cheeses and much more.

How should the producer of milk, the dairy farmer, view milk? Again, it must be viewed as the customer views it — by its attributes. What are those attributes? Certainly price is one attribute. Another is nutritional quality. The addition of various levels of fat content has been a reflection of this attribute. The customer has determined value and the dairy industry has responded. Another is convenience. Milk is the only beverage I know of that does not fit in the cup holder in a car.

You can similarly think of the attributes of the agricultural or horticultural products that you produce.

Increasingly, the important attributes of food products concern food safety. Consumers increasingly value food products and food product production and delivery systems that have real or perceived food safety advantages.

Recent events including terrorism, food-related disease outbreaks, new biotechnology products and food contamination have heightened interest in and concern about food safety. Farmers and everyone in the food system will continue to be faced with these issues. As you are faced with these issues, including proposals for traceback and animal identification, I encourage you to think about the consumer's view. Look at your product through the "eyes" of the consumer. Just as with cars, if the consumer values the attribute, she or he will pay for it. Any attribute that consumers will pay for is an opportunity for producers.

July 2002

Back to the Future? Customer Relationship Marketing (CRM) in Food Retailing

Rod Hawkes
Senior Extension Associate, Food Industry Management Program

Close your eyes and imagine traveling back 75 years in time to 1927, when small, independent neighborhood grocery stores and specialty shops were the norm. In those days, the grocer/owner knew most of the customers by name and many of their food preferences and needs. The store was probably a family operation and the grocer's family may have lived right in the neighborhood, if not above the store itself.

That type of customer intimacy has largely disappeared as large supermarkets replaced grocery stores and supermarket chains have increasingly replaced independent ownership in many parts of the world.

However, history has a tendency to repeat itself and often what is old becomes new again. Such is the case with a new trend in food retailing called customer relationship marketing (CRM). Essentially, CRM is an attempt to regain the customer intimacy that was so much a part of the grocery industry in the past. The goal of CRM is to create and maintain customer loyalty because a loyal customer can be less costly to serve and, therefore, may be more profitable in the long run.

Customer relationship marketing (CRM) can be defined as understanding the specific needs and preferences of individual consumer households and marketing, staffing, and merchandising to meet those needs. The key CRM objectives are to increase (1) operational and marketing efficiency, (2) customer loyalty, and (3) long-term profitability.

The difference today is that the huge size of current supermarkets makes it difficult to establish actual person-to-person relationships as in the early days of the 20th century.

Two major factors are driving the exploration and adoption of CRM by food retailers: technology and competition. *Technology* is enabling retailers to track purchases by individual households through bar code scanning and customer identification cards. Retailers are thereby able to target promotions and advertising to the customers who actually use various products.

Competition from other supermarkets, nontraditional food retailers such as supercenters, wholesale clubs, drug stores, and convenience stores, and many rejuvenated farm markets has resulted in too many outlets vying for the grocery spending of a consumer base that is not growing as fast as the number of shopping alternatives. As the number of stores in a market increases, competition forces prices to decline, putting a premium on efficiency to maintain profitability and sales growth.

In this environment, smart retailers recognize that the cost of acquiring a new customer is much higher than the cost of keeping a current customer. Also, loyal customers can be more profitable, especially over their lifetime, than customers who switch stores on a regular basis. Therefore, CRM focuses on identifying and nurturing a store's best customers and trying to increase the loyalty of the rest of the store's customer base.

For at least the past 40 years, food retailers have treated all customers as if they were equally important (i.e., profitable) to the company. Advertising fliers are universally available in stores or as newspaper inserts, as are discounts, coupons, and even frequent shopper card membership. Customers who only purchase a few discounted sale items have been treated the same as customers who purchase the majority of their food and household goods each week in one store.

Today many retailers understand that as little as 30 percent of their customers may account for as much as 80 percent of their sales. Obviously, all customers are not created equally! CRM offers a vehicle by which retailers can better manage their biggest asset — customers — by rewarding the best customers for their loyalty.

The large scale of supermarket operations requires sophisticated computerized database management to effectively deploy CRM. However, since CRM principles can be deployed on a smaller scale without a huge technology investment, this may be an area where small stores, farm stands, and farmer's markets may have a distinct advantage over their giant competitors. Smaller operations often already enjoy a more intimate relationship with their customers that can be enhanced and solidified through attention to customer needs and service. In fact, one of the acknowledged supermarket CRM leaders in the country is a one-store operator in Syracuse, NY called Green Hills Farms Market.

Small size and local ownership are attractive for a growing segment of shoppers across most demographic groups. Evidence of this trend is found in the parallel movement of major retail chains to build smaller stores, incorporate local and regional products, and to become more involved in supporting activities in each store's local community, among many other things. On the consumer side, recent events have caused more and more concern about the origin, handling, and safety of the foods they buy. Locally owned and operated food stores can alleviate some of these concerns with their familiar faces, product knowledge, local sourcing, and customer service. Small store operators may also be able to respond quicker to changes in consumer tastes and demand. All of these features may allow small operators to achieve the ultimate goal of CRM: ***Customer Loyalty.***

Marketing Strategies of Exemplary Organic Farmers

David Conner
Research Support Specialist

How do organic farmers decide what to grow? How do they stay in business while some others fail? What opportunities and threats do they face? These and other questions were asked of a group of exemplary organic farmers affiliated with the Northeast Organic Network (NEON) project, an innovative consortium of farmers, researchers, extension educators and grass-roots non-profits working together to improve organic farmers' access to research and technical support. These farms were nominated by peers and researchers as hallmarks of successful organic farming.

Informal marketing interviews were conducted on eight farms during the winter of 2002-2003. Questions were broad and open-ended to allow farmers to describe their operations and marketing strategies in their own words wherever possible.

The rationale behind crop choice varies greatly among farms. Many mentioned growing crops that grew well on their farms (fitting the farm's climate and land, or the farmers' skills) or that they enjoyed growing. Others chose crops that fit well in their overall rotation schemes or that were selected for specific traits (taste, disease resistance, etc.). The demand of either wholesale account buyers or Community Supported Agriculture (CSA) members greatly influences crop choice too. CSA farmers tend to grow a broad variety of staple vegetables that are familiar to members and easy to cook (potatoes, carrots, tomatoes, etc.).

Quality of product and service are two commonly mentioned competitive advantages on these farms. Given the seasonal and scale limitations of northeast farms, they rely largely on niche markets and personal relationships with their consumers or buyers. They focus on providing a higher level of service and quality to set them apart and keep their customers from buying from cheaper or more convenient mass channels. "The customer is always right," one grower states; providing low quality or service even one time may well lose the customer forever. One farm grows 55 varieties of heirloom tomatoes, paying special attention to flavor rather than high yield, long shelf life, or other traits emphasized by large-scale organic growers.

In growers' minds, education is another key feature to customer retention. One farm creates and distributes point-of-purchase materials on the produce, describing how it tastes and how to cook it. The farmers hold "taste-offs" for tomato varieties. CSA farms hold open houses, picnics and farm tours to emphasize the social aspect of CSA, build relationships between grower and consumer, and teach about farming practices and land stewardship. Many mentioned that building relationships and addressing consumers by name are vital.

Many farmers see a growing opportunity in the increased popularity of and media attention upon organics and consumers' desire to "know where food comes from." They felt that markets for organic grain farmers are currently fairly good, although the future is uncertain. Most of the vegetable farmers continue to operate on a small scale. While this poses a challenge when competing with larger growers, it also enables them to respond quickly and nimbly to changing demands and market conditions, and grow a diversity of crops.

Despite their successes, these farmers see threats in current trends as well. Increased imports of food threaten farm prices; increased demand for organics has brought competition in the form of new or transitioning farmers. The National Organic Program brings greater scrutiny and a more rigorous inspection process, as well as uncertainty as to rule changes. Grain farmers are also concerned about seed availability (finding seed that both meets the traits their buyers desire and grows well organically in their regions) and the impact of pollen drift from genetically modified crops. Finding adequate labor supply is an ongoing challenge for many farms.

Concerning the "Four Ps" of marketing (product, place, price, promotion), there was a consensus on the need for high quality, but disagreement on price. Some farms, especially smaller ones more reliant on direct marketing, maintain a high price to reflect the premium quality of food and refuse to lower it. Other farms set it lower than the equivalent prices in grocery and health food stores and fear raising it because of customers' past expectations. Place varies from on-farm CSA pickups to wholesale deliveries to big cities. The degree of promotion varies, too, from word-of-mouth to brochures, websites and advertisements in holistic magazines and newsletters.

Each farm is unique in its marketing strategies and view of the future, but it is clear that there is a place in the American agricultural landscape for high quality organic food from farms willing to create and nurture niche markets. Matching the market to the grower is more art than science, and depends greatly on the farmer's skills, interests and personality. Finding those opportunities is a challenge to growers, researchers and extension educators.

December 2001

Direct Marketing in New York State

Wen-fei Uva
Senior Extension Associate
Horticultural Product Marketing

Farmer-to-consumer direct marketing or farm retailing experienced a resurgence of interest in recent decades. Some contributing factors include depressed wholesale farm prices and consolidation in the produce industry in recent years. Many medium- and small-size farms have adopted direct marketing to consumers as an alternative to sustain business vitality. In addition, growing consumer interest in nutrition and food quality, combined with increased attention in the sustainable agriculture movement and in local community development, further fueled consumer interest in direct purchasing from farmers. However, marketing directly to consumers takes special skills and abilities on the part of marketers and requires a favorable location with respect to land resources and local markets. Since many direct marketing operators lack the resources and experience to compete with supermarkets, they need to differentiate themselves from mass marketers.

This article will summarize results of a survey conducted by the Cornell Horticultural Business Management and Marketing Program to collect information on farmer-to-consumer direct marketing (retail) practices used by New York vegetable farms in 2000. One hundred twenty-two direct marketing vegetable farms from 44 counties in New York are represented in this survey. The direct marketing sales in this study refer to farms selling their products (food and non-food) and services directly to consumers using various retail outlets — roadside markets, farmers' markets, pick-your-own (PYO), community-supported agriculture (CSA), catalog, internet, etc. A majority of direct marketing vegetable farms produced more than vegetables. Among the surveyed vegetable farms, 46 percent also produced fruits and berries, and 45 percent also produced ornamental crops. Although the overall average retail sales of the surveyed farms were $123,196 in 2000 (including products grown on the farm and purchased for resale), one-half of the respondents had less than $30,000 (median) annual retail sales.

Direct marketing to consumers was an important source of farm income for vegetable farms with retail activities. Forty-five percent of the farm income generated by the surveyed direct marketing vegetable farms was from retail sales in 2000. Sixty-nine percent of the respondents received more than half of their farm's gross income from direct sales to consumers. Moreover, for 44 percent of the respondents, retail sales accounted for more than 90 percent of their total farm receipts, compared with 7 percent of the respondents who attributed less than 10 percent of farm receipts to retail.

Although direct marketing is an important source of income for these farms, they generally did not depend on retail alone.

Five marketing channels were identified in this survey 'wholesale to supermarkets', 'wholesale to other retail farm markets', 'wholesale to foodservice outlets', 'wholesale through other wholesale outlets' (wholesalers, brokers, processors, auction, etc.), and 'direct marketing to consumers'. Respondents used an average of 2.3 marketing channels to sell their products. 'Wholesale to other retail farm markets' is the most commonly utilized wholesale outlet, while 'wholesale to foodservice outlets' was the least utilized wholesale channel. Moreover, while only 29 percent of the respondents wholesaled through 'other wholesale outlets', this marketing channel is important to farm income, especially for large farms. Twenty-ninety percent of total surveyed farm sales were generated from this wholesale channel, compared with 14 percent from 'wholesale to other retail farm markets'.

New York direct marketing vegetable farms generally only retail seasonally. The surveyed respondents retailed, on average, 6.4 months in 2000. About one-quarter of respondents retailed less than four months of the year, and only 8 percent retailed year-round. Operations with higher retail sales and operations with urban retail locations also had longer retail seasons. May through October is the most important sales season for direct marketing sales. Fall sales were very significant for New York direct marketers, and December is a month with potential to generate high sales.

Fresh vegetables, ornamental plants and fresh fruits were the top three retail items for New York direct marketing vegetable farms. Other products sold by surveyed farms included processed products, holiday crops (pumpkins and Christmas trees), gifts and accessories, baked goods, ice cream, meat products, milk and cheese products, and other products (maple syrup, mushrooms, entertainment activities, furniture, firewood and wool). Larger retail farms had a broader product mix. New York direct marketing vegetable farms also retailed more than just items that they produced. They purchased items for resale to expand their product line, increase variety, and supplement the volume of products available for retail. Except vegetables and pumpkins, more than 50 percent of farms purchased some items in all other product lines identified in this study to resell.

Among the direct marketing methods identified in this study — roadside markets, farmers' markets, PYO, CSA, catalog sales, internet sales, and other methods (including direct order/custom sales), New York direct marketing vegetable farms with direct marketing activities generally used one to two marketing methods to retail their products. Three of the most commonly used direct marketing methods were roadside markets, farmers' markets and PYO. Roadside marketing was used by most direct marketers and generated the highest sales.

Competition in the market and labor-related challenges are the top barriers to success in many direct marketers' minds. Competitions identified include supermarkets, international trades and other farm markets. Labor-related challenges mentioned include lack of labor pool, hard to find seasonal help, difficult to find good labor and keep qualified labor, and high costs of labor. Other top barriers were location, limited resources (capital, time and land), regulations, and marketing-related issues (advertising, display, attracting new customers, etc.).

While the top opportunity identified by the respondents was definitely diversification and expansion, many farms have different plans on how they want to expand and diversify their retail businesses. These plans include expanding product lines, developing entertainment and agri-tourism, diversifying marketing outlets, and extending season, farm size and operating hours. Respondents also strive for 'farm fresh', to provide high quality and fresh products as well as good service. More marketing is another top opportunity identified by respondents.

Direct marketing is an important value-added strategy and source of income for many New York vegetable farms. Many New York direct marketing farms are considering expansion. More marketing training is on the mind of many marketers. Moreover, more attention to marketing and business management will be necessary to ensure future profitability and success.

** For a complete report, please contact Wen-fei Uva at WL32@CORNELL.EDU or 607-255-3688.*

Private Label Brands -- A Growth Opportunity for Retailers and Produce Suppliers

Sandra Cuellar
Extension Associate, Food Industry Management Program

**This article is part of the 2001 Fresh Track Study by the Food Industry Management Program at Cornell University developed for the Produce Marketing Association.*

Over the last decade, Private Label Brands or Store Brands have become a popular and profitable marketing strategy in the United States as well as in Europe. According to a Gallup study sponsored by the Private Label Marketing Association and conducted in September 2000, 71% of U.S. supermarket shoppers consider store brands the same as or better than the quality of national brands.

Retail consolidation has had a strong influence on Private Label. Store brands have become a way for retailers to differentiate themselves from their competitors and to create loyalty to their stores in an evermore tightly concentrated marketplace. In Europe, Private Label products' value and unit penetration in the seven major markets has been significant, with the United Kingdom leading at 45.4% volume share and 43.5% value share in 1999. This is followed by Belgium, Germany, France, the Netherlands, Spain, and Italy (Table 1). Where is the growth potential for Private Label brands? The long-term Private Label trends in the UK market for the period 1997-2000 indicate that Private Label share of sales has continued to grow mainly in the food sectors, and particularly in perishables such as dairy and bakery, with shares of 52.4% and 61.1% in 2000, respectively. Shares for other categories such as household products, soft drinks, and health and beauty aids decreased during this period.

Table 1. Private Label Penetration in Europe 1999

Country	*Volume Share %*	*Value Share %*
United Kingdom	45.4	43.5
Belgium	34.7	27.4
Germany	33.2	26.0
France	22.1	19.1
The Netherlands	20.6	18.4
Spain	20.5	14.8
Italy	17.1	15.5

Source: PLMA Yearbook 2000.

In the United States, Private Label penetration (value share) among the top ten food retailers in 2000 ranged between 7% for Costco to 23% in Winn Dixie Stores and A&P (Table 2). In 2000, Private Label sales in U.S. supermarkets increased 1% in dollar share of sales to 15.5% but decreased 1.2% in unit share to 20%, compared with 1999. Among the different types of products, basic commodities declined at the expense of so-called value-added products: six out of the ten top commodity categories declined in dollars sales and eight of the top ten declined in unit sales. Among the main double-digit gainers in share of sales are frozen and refrigerated items that is, many perishable products. Packaged salads have been one of the highest-growth segments, accounting for 12% of the value-added category, up 4% from 1999.

As these data clearly indicate, a shift from the basic commodity to the value-added categories is driving the Private Label sales figures. In the United States the growth of fresh-cut produce is a principal contributing factor toward selling more store-branded produce since little Private Label development has taken place so far in the produce department and national brands are only present for a few items. It is up to retailers to take advantage of this opportunity, which, in theory, should benefit the whole produce industry and, similarly, it is up to both retailers and suppliers alike to master the challenges involved.

Challenges for retailers include a commitment to quality, along with delivering produce to meet the standards of today's consumers' expectations on a permanent basis, and ensuring that the product being packaged corresponds to the image of the store. Challenges for suppliers include the ability to provide their customers the required quality in sufficient, adequately packaged and safe quantities on a permanent basis. At both ends of the supply chain there is a need to innovate and to have the flexibility to adapt to the consumer's changing needs and wants.

The growers and shippers surveyed in the 2001 Fresh Track study consider that the major responsibility for Private Label in the produce industry lies with the retailers. Retailers agree with this assessment. In five years, growers and shippers see this mainly as a shared responsibility, though retailers still view it more on their side and as a shared responsibility, as opposed to being more on

Table 2. Private Label SKU Count and Share of Sales in 2000 for the Top Ten US Food Retailers

Company	*Total Sales billion $*	*Aprox. PL SKU count*	*PL share (% of total dollar sales)*
Wal-Mart	57,200	5,000	20%
Kroger	49,700	6,000	20%
Safeway	32,500	3,000	20%
Albertson's Inc.	31,000	6,000	16%
Ahold USA	28,100	2,000	20%
Costco	17,700	500	7%
Delhaize America	14,700	6,500	17%
Winn Dixie Stores	14,323	2,700	23%
Publix Super Markets, Inc.	14,100	1,200	16%
A&P	10,500	2,300	23%

Source: 2001 Report -- Top 40 Supermarket/Wholesalers. *Private Label*, March-April 2001, pp. 27-32.

the grower/shipper end of the supply chain. Some growers/shippers indicate negative experiences with orders for Private Label products. These negative experiences are mainly related to order cancellations, and the consequent need to repackage the product, with additional costs involved and diminished product quality and shelf life.

Clearly, if the industry is to benefit from the growth opportunities that Private Label produce offers, adequate planning, accurate forecasting, and appropriate brand managing are the requisites for retailers. For suppliers, the ability to maintain quality standards, to innovate, and to add value constitute key strategies. Above all, this is a business opportunity where partnering of retailers with growers and shippers would bring about the best system-wide outcome.

September 2002

Does the Organic Label Really Mean What Consumers Want It To Mean?

David Conner
Research Support Specialist

In academic circles, the implementation of the US Department of Agriculture's National Organic Program's Final Rule in late 2000 was often seen as a key step in expanding commerce in organic foods. Before this time, the exact meaning of the organic label, including what was or was not allowed to be used in organic production and processing, was left to a broad group of independent certifying agencies such as New York's Northeast Organic Farming Association chapter. Many researchers argued that having a single definition would make it easier for consumers to know what they are getting when they buy food labeled organic and, therefore, decrease transaction costs and facilitating trade in these foods.

This all sounds good in theory, but the actual process proved to be more difficult. The USDA committee responsible for drafting the rules released an initial draft in 1997 and received an unprecedented 275,000 comments, most of them critical of these standards. The most common objection was allowing the use of what became known as the Big 3: genetically modified organisms (GMOs), biosolids (municipal sewage sludge) and irradiation. Although the Final Rule banned the use of the Big 3, it has become clear that if the meaning of the organic label does not mean what consumers want it to mean, or if the meaning is not well understood, the value of this label, and the program in general, will be diminished.

This issue was the subject of a 2000 survey of current consumers of organic food in Ithaca, New York. Consumers were asked about their attitudes and behaviors concerning organic food. Questions included reasons why they buy organic, whether they thought a number of key practices (including the Big 3) ought to be allowed in the production and processing of organic food, and how much they would pay to have or avoid the Big 3 in organic food.

The results showed that if the meaning of organic is only a list of what practices are allowed, the Final Rule conforms to consumer preferences quite well. About 75% of organic consumers oppose the use of any of the Big 3, and strong majorities also support the banning of hormones, growth regulators, sub-therapeutic antibiotics and confinement of animals. None of these practices are allowed under the Final Rule. In addition, organic consumers are willing to pay an average premium of 50% to avoid each of the Big 3 in organic food. An experimental auction, conducted with another sample of organic consumers a year later, confirmed consumers' willingness to pay a premium to avoid GMOs.

However, results from the auction indicate that label's meaning is not well understood. For instance, most of the participants did not know that GMOs were banned in organic food. Industry has responded to this confusion: many organic food products have a label on the package stating the ingredients are GMO-free. These manufacturers must believe that a significant number of consumers do not understand this aspect of the organic label's meaning if they incur the extra labeling cost.

Furthermore, the organic label does not always guarantee reasons stated by consumers for buying organic. Some common responses, like concerns about pesticide residues, the environment, and farm worker safety, are addressed by the current standards. However, other common responses, such as concern for community, sustainability and opposition to the corporate food system, are not addressed. It is believed that the Northeast's dependency on imported food products from the west coast and around the world contributes to the loss of farms and disintegration of rural communities. Transportation of food over vast distances contributes to fossil fuel depletion and pollution. Following national trends, the organic market has been marked in recent years by increasing domination of large corporate producers and processors. Such issues are central to the spirit and founding principles of the organic movement in many consumers' minds, and the Final Rule does not address them.

These results suggest promotional opportunities for smaller organic producers in the Northeast. First of all, these producers can highlight the fact that buying organic is the best way to avoid the Big 3 (especially GMOs). Organic consumers have expressed willingness to pay a premium to avoid these practices. Secondly, local organic producers should promote their independence from the corporate food system and their contribution to the social and ecological well-being of their communities. Since advertising resources are limited among individual producers, such promotional efforts would likely have a greater impact if organic producer and consumer groups pooled their resources to promote the broader aspects of the benefits of local organic food to a wider audience.

April 2002

Food Away from Home Rebounds

Brian Henehan
Senior Extension Associate
Agricultural Cooperatives

Understanding current consumer wants and needs is an ongoing challenge. Many consumer trends are slow to develop, as consumers typically don't make dramatic shifts in purchases. Periodically, there can be a shock to the system causing more dramatic, short-term changes in markets and consumer preferences. These shocks can reverberate over time. The events of September 11 created such a shock to the food and agriculture system. One significant change immediately following the attack was a decrease in consumption of food away from home.

That change had a dramatic, immediate impact on some groups of agricultural producers. A small specialty products marketing cooperative in the Catskills area of New York lost its single largest customer when the "Windows on the World" restaurant went down with the World Trade Center towers. Other groups of fresh produce growers in the Northeast lost 60% of sales during their peak production season as metropolitan restaurant patrons in key metropolitan markets stayed home.

National dairy markets were affected as prices for cheese, cream and butter dropped significantly as food service sales declined. Sales of novelty dairy products marketed through food service channels also declined.

In response to the uncertainty created by terrorist attacks, consumers have been spending more time with families, entertaining more at home, and seeking the security of the home "nest". As consumers shied away from eating out, some products fared well. Those food products which are convenient to prepare, perceived as healthy, or are seen as traditional "comfort" foods saw increased sales.

Convenience in home-prepared foods can be gauged in a number of ways such as: quick preparation, easy to cook, and packaged complete meals. Food products designed for easy home entertaining such as frozen pizza have seen increased interest from consumers.

Producers may be able to leverage marketing efforts as buyers look for more guaranteed food safety and increased security from suppliers. The ability of suppliers to trace sourcing back to individual farms or preserve identity through the supply chain may be of value to buyers.

However, long-term trends are not easily overridden by short-term events. Our food and agricultural system is very resilient. There is a long-standing trend toward consumers eating more food away from home. The abrupt drop in away-from-home consumption following the events of September 11 has not changed that trend. Indeed, consumption of food away from home has rebounded over the last six months.

It remains unclear what the longer term effects of terrorism might be on consumer wants and needs, but some of the lessons to be learned at this point are:

- Short-term deviations don't tend to override longer-term consumer trends.
- Food consumption away from home is rebounding.
- Marketers who can guarantee secure food supplies may have an advantage.
- Consumers continue to seek out healthy, convenient, and relevant foods whether they are consumed at home or not.

In summary, smart marketers understand that there can be abrupt shocks to the food and agricultural system. But the resiliency of the food and agricultural system, as well as long-term consumer trends, tends to absorb those shocks.

Changing Priorities -- The Gateway to New and Exciting Opportunities in School Foodservice Operations

Sandra Cuellar
Extension Associate, Food Industry Management Program

**This article is part of the 2003 Fresh Track study by the Food Industry Management Program at Cornell University developed for the Produce Marketing Association.*

The "Obesity Epidemic" in the United States, announced by the Surgeon General in December 2001, has certainly put in motion many diverse efforts and initiatives to help reverse this public health problem. Increasing consumption of fresh fruits and vegetables has emerged as a key strategy for this critical situation and promises exciting opportunities for the produce industry in this country.

Indeed, the amazing success of the Fruit and Vegetable Pilot Program (FVPP) reported by the Economic Research Service of USDA to Congress in a recent publication[1] is a case in point. With a budget of $6 million for the 2002-03 school year, the FVPP stemmed from the Nutrition Title of the 2002 Farm Act with the main objective of promoting fruit and vegetable consumption among the nation's school children. The Program, which was designed around the free distribution of fresh and dried fruits and vegetables in 107 schools, might be expanded to schools nationwide in the near future.

The success of the FVPP Program was reported by a majority of the participating schools on the basis of students' interest in taking part in it. In addition, through this Program some students were exposed to a wide assortment of fresh fruits and vegetables, in some cases for the first time ever. Other relevant effects of the Program as reported by staff members in participating schools include students' increased awareness and interest for a variety of fruits and vegetables (particularly some less familiar produce items), greater acceptance of fruits and vegetables offered as part of school meals, and increased consumption of fruits and vegetables at lunch. Also, students' parents reported that their children were requesting more fruits and vegetables at home and the opportunity to try unfamiliar fruits and vegetables without pressure from home.

The FVPP program and interviews with school foodservice experts also indicated that students preferred fresh produce over the

[1] Buzby, Juan C., Guthrie Joanne F., and Kantor, Linda S. "Evaluation of the USDA Fruit and Vegetable Pilot Program – Report to Congress." May 2003.

dried products, and they want new and interesting products, individually packed in attractive packaging, portable and easy to eat. Hand-held products are important. Fruits are definitely more popular than vegetables. Many schools used dips and side condiments to improve vegetable consumption among students. Schools are interested in products that are well accepted by students and that incorporate enough added value to facilitate operations, reduce labor costs and guarantee food safety at an affordable price. Most schools in the FVPP program (96%) bought higher cost foods for the Program, such as pre-cut and prepared trays of fresh fruits and vegetables, particularly pre-cut carrots and celery, to control labor costs and to handle storage limitation.

The participating schools include a mix of large and small, rural and urban, elementary, middle and high schools, and students from diverse ethnic backgrounds and family income levels. Therefore, results do convey a clear message to the produce industry about the underlying opportunities in this non-commercial segment of the foodservice industry. Even though the produce industry often looks at this segment of the foodservice industry as one where the challenges out-weigh the opportunities, clearly times are changing and the new priorities might just provide the conditions for more exciting and successful business opportunities. The FVPP results have shown that students are interested and willing to try and to eat a wider variety of fresh fruits and vegetables, and schools are excited about it and looking forward to alternatives that will allow them to offer more of these products to their students. In the short run, the increased consumption of a variety of fresh fruits and vegetables among children clearly implies larger volumes of produce that could be moved through this channel. In the long run, the opportunity lies in that today's children, with an increased awareness and interest in fresh fruits and vegetables, will become tomorrow's shoppers.

Aside from increased funding that would have to come from the Government as a result of changing priorities to reverse the current obesity epidemic, schools will need the produce industry's support to take this initial success even further. This support could come not only in the form a variety of product offerings that will deliver on both students' and school foodservice operations' needs and expectations at an "affordable" price point, but also from other strategies that will contribute to schools' success with these products.

HMC Group Marketing's Lunch Bunch Grapes and Grimmways' "Snack Pack" baby or crinkle-cut carrots are two successful produce examples. A trademarked brand, the Lunch Bunch Grapes program offers schools red seedless grapes in bunches of 2 or 4 ounces, in cases of 150 bunches or 20-21 pounds. Bunches just need to be rinsed and drained before serving. It is a value-added product of consistent size and quality available 50 weeks a year at an "affordable" price point. Approximately 75% of the Lunch Bunch Grapes are sold to schools. Grimmways' "Snack Packs" are baby or crinkle-cut carrots individually packed in a 1.6 ounce package which meets USDA one-serving standards. Again, it is a value-added product that is portable and easy to use and requires little labor while providing complete food safety assurance. "Snack Packs" register double-digit sales growth in schools. An example of the type of initiatives developed by other sectors of the food industry includes the Wisconsin Dairy Council program that provides schools with refrigerated cases at 25% of their cost. Attractive-looking and easy for kids to use, these cases allow schools to successfully promote and sell a variety of dairy products.

Development of training “kits” for managers and chefs alike on the “a,b,c’s” of produce and particularly of value-added produce constitutes yet another type of support that the produce industry could provide to schools. Self-instructive training kits with key information on produce issues such as “how to buy” (varieties, size, pack, value-added options), “when to buy” (varieties, harvesting season, prime time), “how to handle and store”, and “how to display and serve” to maximize flavor and acceptability, would be a most important tool for schools’ foodservice success with produce.

Marketing Fresh Fruit and Vegetable Imports in the US: Status, Challenges, and Opportunities

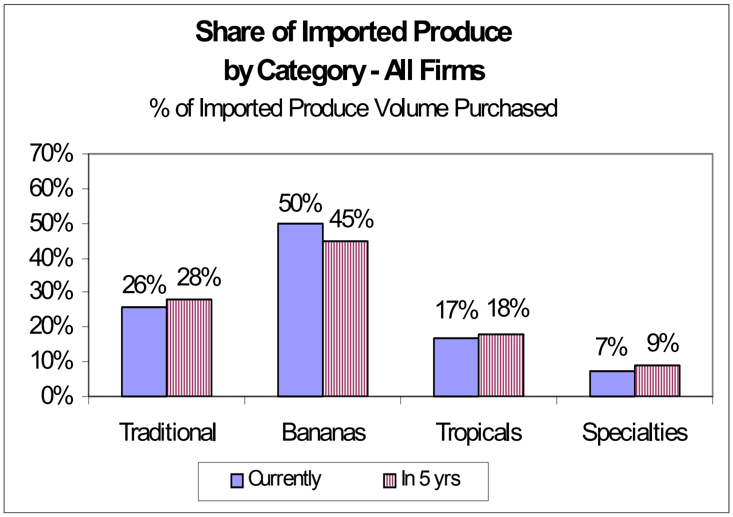
Sandra Cuellar
Extension Associate, Food Industry Management Program

Per capita consumption of fresh fruits and vegetables in the United States increased from 254 lbs. in 1980 to 328 lbs. in 2000. At the same time, imports of fruits and vegetables into the U.S. market have increased at an annual growth rate of 7.8% for fruits and 8.1% for vegetables between 1990 and 2000, and imports' share of consumption went from 24% to 40% for fruits and from 5% to 11% for vegetables between 1980 and 1999. In the current state of consolidation and fierce competition in the retail industry, the produce department is a major contributor to sales and profits in supermarkets. Imported products are gaining attention because of their increasing importance in the produce department.

This article reviews results from surveys conducted with retailers over the internet and personal surveys administered to importers and foreign exporters during the 2001 PMA Convention in Philadelphia. A total of 13 retailers, 9 importers and 9 exporters participated in the study. The objectives of this exploratory research project were to identify the current status of imported fruits and vegetables at retail, characterize the business practices of different participants involved in the supply chain of imported fruits and vegetables (retailers, importers and exporters), and identify opportunities and challenges faced by these participants in marketing imported produce in the U.S. market.

Imports account for 27% of the volume of produce currently sold by supermarkets and will increase to one-third in 5 years. Four categories of imported fruits and vegetables were examined in this study – traditional (mainstream or common fruits and vegetables), banana, tropical and specialties (exotic fruits, vegetables, roots and tubers). Bananas account for half of imports' volume but its share is expected to decrease, while shares for traditional, tropical and specialties are expected to increase in the next 5 years. Traditional imported products are carried mainly to increase sales, bananas to increase both sales and profits, tropicals to target ethnic consumers, and specialties as a way to differentiate, diversify and target ethnic consumers. Main sources of imported produce for retailers are importers, followed by US grower/shippers and wholesalers. US grower/shippers play a significant role as a source of many of these products, particularly in providing tropicals and specialties to retailers.

Key current issues in marketing the four categories of imported fruits and vegetables among retailers are assuring food safety, reducing transportation costs, and improving eating quality. Reducing shrink and ensuring year-round availability are important in all but specialties. In the future, retailers anticipate that the application of irradiation, adding value to products and introducing new varieties will become key issues.



Seventy-five percent of participating importers source their products by purchasing them directly from foreign grower/shippers. Major retail chains are their main customers (55%), followed by wholesalers (14%) and full-line general wholesalers (13%). Current key issues faced by importers in marketing imported fruits and vegetables include improving eating quality, assuring food safety, improving packaging and providing product traceability.

The main source of products exported by participating exporters is their own produce and produce purchased from other growers. Their main marketing channel is wholesalers in the United States. Current key issues faced by exporters in marketing their products include improving packaging, adding value to products and assuring food safety.

Implications and Outlook

As current consumption trends in the US continue, retailers' business in produce is likely to continue to grow. The increasing variety and availability of imported fruits and vegetables will continue to contribute to retailers' produce business. It is in the retailers' best interest, therefore, to better coordinate efforts with their suppliers in addressing both current and future issues related to marketing imported fruits and vegetables. Likewise, it is in the best interest of suppliers (importers and exporters) to better focus on their target market needs and to coordinate with their customers the efforts needed to address those marketing issues.

Contracting in Fresh Produce: Wave of the Future?

Kristen Park
Extension Support Specialist, Food Industry Management Program

Excerpt from:
Perosio, Debra J., Edward W. Mclaughlin, Sandra Cuellar, and Kristen Park. 2001. *Supply Chain Management in the Produce Industry*. Produce Marketing Association, Newark, DE. October 2001.

The data gathered from this year's *FreshTrack 2001* retail respondents corroborate a trend established in virtually all of the previous *FreshTrack* studies: buyers and sellers of fresh produce are departing from traditional practices of transacting sales through daily spot sales in favor of engaging in a wide range of contractual agreements. Of course, this is not happening overnight, but the evidence collected in this year's study demonstrates that it is happening relatively quickly for a number of reasons. Opportunistic buying and selling of merchandise, where one or the other party finds itself facing unusually unfavorable short-term conditions, is not part of the long-term mission and operating strategy of the ever larger, sometimes multinational, companies now part of the community of produce buyers and sellers. Indeed, many of these large companies are now playing a channel-dominant role. These companies have been more aggressive in adopting supply-chain management practices where the objective is year-end, not weekend, results. Their interest is net returns, not gross returns. What's more, in recent years, the produce industry has experienced more "long" than "short" situations. Such a condition generally shifts the advantage of contracting to the buying side of the market, once again providing retail buyers additional motivation over the past several years to increase their contracting.

Despite a number of considerable disadvantages, in general, today's buyers and sellers alike appear to be won over by the greater price certainty that contracting makes possible. It facilitates their ad planning, sales, planting, harvesting, and packing decisions. Moreover, it ensures sellers an outlet for at least a portion of their produce and it ensures buyers a source of produce, particularly in difficult supply conditions.

However, high degrees of product perishability, weather uncertainty and resulting price volatility, and structural differences between and among produce buyers and sellers create significant challenges to the design of the produce contract. Contract characteristics range widely from those that are concerned only with quantities and product specifications to those that focus more narrowly on price. Additionally, a growing number of contracts today specify various fees and services that one or the other participant will perform.

A contract developed during the 2001 marketing season prominently cites prices to be paid as well as packaging specifications, quarterly and annual volume targets and, importantly, rebates and promotion. Advertising schedules are laid out, including so-called BOGO ("buy-one get-one" free) allowances. Finally, it should be noted that natural disasters, crop failures, and "acts of God" clauses are now being routinely included in fresh produce contracts to protect buyers and especially sellers.

February 2003

Vegetable Consumption, Dietary Guidelines, and Agricultural Production in New York State -- Implications for Local Food Economies

Christian Peters, Graduate Student, Department of Crop Sciences
Nelson Bills, Professor, Applied Economics and Management
Jennifer Wilkins, Professor, Division of Nutritional Sciences
R. David Smith, Professor, Department of Animal Science

Local food economies that feature well-developed demand responses by local producers to regional consumers' needs are gaining attention as a means for boosting agriculture and food production in New York State. Concurrent with this interest in local agriculture is a national concern over the health effects of American food consumption patterns and the capacity of agriculture to provide nutritious diets.

This article reports on a study that merges these areas of inquiry in the context of a nutritionally and economically important agricultural sector: New York State vegetable production. Three important and heretofore unanswered questions are examined. First, how does New York State vegetable production compare with the vegetable consumption by New Yorkers? Second, how does production and consumption of vegetables compare with the recommendations on the U.S. Department of Agriculture Food Guide Pyramid? Finally, what implications, if any, do these comparisons have for New York State agriculture?

We looked at these questions by adopting national, regional and state data to estimate vegetable production and vegetable consumption in-state. Our analysis was patterned after methods established by the Economic Research Service to make national comparisons of farm commodity production and food consumption to see how they stack up against the Food Pyramid recommendations.

Regarding consumption, we determined that no comprehensive data exist for New York; instead, we adopted annual per capita vegetable consumption estimates for the Northeast. We estimate that New Yorkers consume approximately 160 pounds of vegetables per person per year. This is vegetable intake — after accounting for inedible portions, food loss, and so on. Based on population estimates, this level of per capita consumption indicates that in-state vegetable consumption was about 2.9 billion pounds in calendar year 1999.

In contrast, New York State farmers harvested an average of 3.3 billion pounds of vegetables annually during the 5-year period 1994-1998. After knitting together all available production data, we find that this production comes from 81 individual "vegetable crops". Included were edible dry bean crops that usually are not categorized as vegetable commodities in production statistics. After adjusting for post-harvest losses and inedible portions, the consumable equivalent of New York's farmgate production is 1.6 billion pounds. Based on a crop-by-crop comparison, New York produces a handful of vegetable crops (e.g., beets, cabbage, onions, pumpkins, snap beans, and sweet corn) in quantities that exceed the estimated in-state demand. As a result, New York produces enough vegetables to provide 38 percent of the total vegetable consumption plus 500 million pounds of "surplus" of the aforementioned crops.

Our comparisons with the Food Guide Pyramid demonstrate that both vegetable consumption and production in New York State mirror national trends. New Yorkers eat too few nutritionally important vegetables. Consumption of the "dark green leafy & deep yellow vegetables" and the "dry legumes" are only 41 percent and 19 percent, respectively, of the recommended amounts. Though New York State harvests enough dry edible beans to match the current level of consumption, it is well below the recommended amount. Furthermore, New York is a minor producer of the dark green leafy and deep yellow vegetables, producing only 12 percent of the recommended number of servings.

We believe that our study could have favorable implications for New York State vegetable growers and consumers. Our intent was to improve understanding of the links between vegetable consumption, vegetable production, and nutrition all within the context of New York agriculture. We view such understanding as the necessary starting point for identifying any potential for New York agriculture to both supply a greater share of produce to New York residents and promote better state-wide nutrition.

There are limits to the implications that can be drawn from our study regarding the prospects for expanding or reducing vegetable acreage in New York State. Growers are responding to prices, anticipated trends and other market factors, as well as their new and ongoing relationships with buyers of their product. This study does not address prices or the nature of these marketing relationships. Nonetheless, our results help producers make informed future decisions regarding vegetable production by estimating the volume of in-state consumption and the directions in which state vegetable consumption may be trending as health-conscious New York State consumers adhere more closely to nutritional guidelines.

Considered in this light, our results help pave the way for estimates of the potential market value of vegetables currently consumed in smaller amounts locally (statewide) as well as revealing the potential influence of expanding ethnic markets and other trends in consumer preferences and food choices. Such information can be increasingly important to growers who can gain strategic advantages in targeting local, ethnic, or other demographically important markets. One marketing approach that could be supported by this research is expanding production of crops currently being under-produced relative to consumption, exploiting local niche markets further. Producers now targeting a few high volume markets for processed or fresh vegetables would do well to consider the results of this study in light of their prospects for diversifying production and possibly increasing the economic vibrancy of their businesses.

Looking across New York State, the vegetable sector is arguably one of the biggest success stories of New York State agriculture. Today as in years past, sales of veetables to fresh and processed markets constitute one of the largest sources of income for New York farmers. In addition, though New York State has lost millions of farmland acres to either development or reforestation since the 1950s, land used for vegetable production has remained fairly constant at 170,000 acres. Moreover, though the total number of farms in New York has declined precipitously in the last 50 years, the number of farms classified as vegetable farms by the Census has remained amazingly stable. Indeed, despite many dramatic changes in the industry over the last century, vegetable production continues to be a mainstay of New York agriculture.

Identifying potential production opportunities for producers is beyond the reach of this study, primarily because those opportunities are greatly intertwined with decisions producers must make about their own market options. Nonetheless, our study adds new perspective and context to these farm-level marketing discussions, and illuminates areas where additional research is needed in setting goals and researching in-state markets for vegetable commodities. From the work we present, large-, medium-, and small-volume vegetable producers will undoubtedly discover new options for targeting New York State consumers and capitalizing on demographic and ethnic market trends, as more nutrition-savvy New Yorkers adhere to the Food Guide Pyramid dietary standards.

For the complete report please see: http://aem.cornell.edu/research/researchpdf/rb0207.pdf

Marketing Fruit

Edward Parkinson
Expert Agriculturist
Reprinted from *Jamestown Journal*, November 11, 1913

Editor's Note: *This article was discovered by Dr. Bruce Anderson, Department of Applied Economics and Management, Cornell University. It was originally printed by the Jamestown Journal, now the Jamestown Post-Journal, on November 11, 1913 (permission granted to reprint). It was found when his wife was refurbishing a piece of furniture taken from their Falconer, NY, homestead, sold in 2000.*

The Cornell Agribusiness Management and Marketing faculty feel that many of the points are as applicable today as in 1913. In 2001, apple growers established Premier Cooperative, a "growers' association", to improve marketing and enhance grower returns. The cooperative represents a significant portion of all fresh apples sold on the east coast and includes members from New York, Michigan, Ohio, Pennsylvania, and Virginia. During the same year, 14 onion growers in Oswego County, New York formed a corporation and branded their product "New York Bold" to ensure quality and enhance their collaborative marketing power. We also see a fast growth in direct marketing activities among fruit and vegetable growers.

The market will continue to change, and marketing will continue to challenge the fruit and vegetable industries today and in the future much as it did 90 years ago. Success in the future will require the industry and individual businesses to do something different from the past, be innovative, take control, and develop appropriate strategies to maintain and improve competitiveness.

There are four ways of disposing of orchard products selling the fruit on the trees to a buyer, who comes to the orchard and makes a lump sum offer; selling through a commission merchant; selling through a fruit growers' association; or selling to the consumer direct.

The first method involves the least trouble, but the seller receives the lowest price, as the buyer has not only the work of picking, etc., but must sell the fruit to a middleman. Moreover, buyers will not, as a rule, contract for small orchards, the expense of bringing men, etc., being too great. However, if the owner has an orchard of several acres and is unable to superintend the work himself, selling in this way is both practical and profitable.

Selling through a commission merchant is often very satisfactory, particularly if the orchard is not near any market, and if care is taken to look up the merchant's financial standing, for the commission man naturally does his best to sell to advantage. In selling in this way, write or telegraph the merchant before shipping, that he may be prepared to receive and dispose of the fruit at once.

To sell through a fruit growers' association, one must become a member, and this may be done by writing to the state department of agriculture for the names of the associations in the state and their financial standing; also by writing to the secretary and applying for membership. These societies undertake to sell the fruit of their members in the best markets. In fact, it is not unusual for fruit growers' associations to take charge of a crop from the time it becomes ripe, picking, packing and selling the same, the grower simply cashing the check he receives as the result of his year's work.

Selling to the consumer direct is an excellent method of disposing of one's produce in more ways than one if the farm happens to be near a town or city. In the first place, better prices are obtained for the fruit, and not infrequently a market is opened for eggs, poultry, potatoes or anything delectable one may choose to raise. There is also the interest of personal contact and the change of the town sights and sounds, which, to a country dweller who doesn't live among them, is often an agreeable diversion. However, to sell a crop of apples by the bushel or quart, for instance, necessitates a storage building of sufficient capacity to hold the entire output, so that one may keep a crop for the best prices. Such a building need not be an expensive affair, but it must be frost proof.

September 2003

Fruit Consumption, Dietary Guidelines, and Agricultural Production in New York State: Implications for Local Food Economies

Christian Peters, Graduate Student, Department of Crop Sciences
Nelson Bills, Professor, Applied Economics and Management
Jennifer Wilkins, Professor, Division of Nutritional Sciences
R. David Smith, Professor, Department of Animal Science

Consuming locally produced foods offers many benefits to consumers, farmers, and the environment. As a result, local food economies are gaining attention as a means for boosting agriculture and food production in New York State. Concurrent with this interest in local agriculture is a national concern over the health effects of American food consumption patterns and the capacity of agriculture to support nutritious diets. This article reports on a study which merges these areas of inquiry in the context of a nutritionally and economically important agricultural sector, namely New York State fruit production. The study expands on work completed for vegetables — see the February 2003 issue of *Smart Marketing* at http://hortmgt.aem.cornell.edu/smart_marketing/index.htm.

Three questions were examined in this research. (1) How does New York State fruit production compare with fruit consumption by New Yorkers? (2) How do production and consumption of fruit compare with the recommendations of the U.S. Department of Agriculture Food Guide Pyramid? (3) What implications do these comparisons have for New York State agriculture? These questions were addressed using secondary national and state data. We replicated some analyses that were previously conducted on a national basis by the USDA Economic Research Service to assure comparability with prior research.

According to the most recent national food intake data, annual per capita consumption for the Northeast U.S. averaged 180 pounds between 1994-96. Based on this level of consumption, we estimate that New Yorkers ate approximately 3.2 billion pounds of fruit in calendar year 1999. In contrast, New York fruit growers harvested an average of 1.5 billion pounds of fruit annually during 1994-1998, of which just 816 million pounds was "consumable" after adjusting for weight changes that occur during processing (e.g. canning, freezing, juicing), post-harvest losses, and inedible portions. A handful of these products (fresh apples, processed apples, and processed cherries) were produced in quantities that exceeded the estimated in-state demand. As a result, we estimate that New York produced enough fruit to provide 18 percent of all the fruit New Yorkers consumed plus 256 million pounds of "surplus" of the aforementioned three commodities.

Comparison of consumption with the Food Guide Pyramid demonstrates that, though fruit intake in the Northeast is higher than the national average, intake is still well below recommended levels. Based on current fruit consumption (1.9 servings per person per day), New Yorkers would need to increase consumption by 63% to reach the recommended intake. Current consumption is consistent with the Pyramid recommendation that intake be split evenly between the Vitamin C-rich "citrus, melons, and berries" and the catchall category "other fruit". However, current dietary preferences may not satisfy the Pyramid suggestion that consumers should choose whole fruits most often. Juices presently comprise more than a third of all fruit servings.

New York harvests enough fruit to provide 20% of this recommended intake, but production is not evenly distributed between the two subgroups. Almost all in-state production comes from fruits in the "other fruits" category (e.g. apples, grapes, and pears) while the production of melons and berries is insignificant relative to the recommended intake.

The results of this research suggest both opportunities and challenges to New York State's fruit growers and consumers. For most fruits, the in-state market is large relative to current production. In addition, consumption of fruit needs to increase substantially to meet national nutritional goals. Taken together, these findings suggest potential for marketing more fruit, and more New York grown fruit, to New Yorkers. However, the length of the growing season and the predominance of just two crops, apples and grapes, bring into question the ability of New York's fruit sector to provide the diversity needed to supply a more significant share of the state's consumption. Moreover, current food preferences may limit sales of in-state produced fruit as over 60% of consumption comes from crops that cannot be grown in New York's temperate climate. Despite these conflicting patterns, potential exists for growers to target local and regional markets, particularly if they can excite the palates of nutritionally conscious consumers.

For a complete report of this study, please see "Fruit Consumption, Dietary Guidelines, and Agricultural Production in New York State – Implications for Local Economies" by Christian Peters, Nelson Bills, Jennifer Wilkins, and R. Dave Smith, RB 2003-02, Dept. of Applied Economics and Management, Cornell University (http://aem.cornell.edu/research/researchpdf/rb0302.pdf).

Trade Safeguards and Agricultural Imports: The Case of American Cheese

Charles Nicholson
Senior Research Associate
Cornell Program on Dairy Markets and Policy

Imports of American cheese have been making news recently, illustrating just how complicated agricultural trade policy can be in these days of the World Trade Organization (WTO). On November 15, 2002, USDA announced the imposition of additional tariffs on imports of American-type cheese because the total amount of imports during 2002 had surpassed a "trigger" level for such action. The additional tariffs amount to about $0.16/lb., bringing the overall tariff to $0.64/lb. (which is more than 50 percent of the current price of Cheddar cheese in US markets).

The use of these additional tariffs raises questions about the overall effectiveness of trade policy in preventing imports from undermining prices for US producers, and about the various "safeguard" mechanisms that were written into the WTO agreement. When the US agreed to join the WTO, it modified its dairy trade policy to replace fixed-amount import quotas (often with country-specific import licenses required as well) to a system called Tariff Rate Quotas (TRQ). Under this system, the US agreed to allow a limited amount of most dairy products to be imported at relatively low tariffs. This is referred to as "in-quota" imports. The amount of in-quota imports increased through 2001 to allow other countries greater access to US markets. (Other countries were also required to provide greater access to their markets.) Amounts of imports over the "in-quota" amount are subject to much higher tariffs, and are referred to as "over-quota" imports. These higher tariff rates were often large enough that they made over-quota imports very small under normal market conditions. Even with this protection, many of the countries joining the WTO saw a need for additional measures, just in case imports grew too rapidly, or world market prices dropped too far below previous levels. This is where "safeguard" mechanisms come in.

There are a number of "safeguard" provisions for different products. Under "normal" safeguard mechanisms, producers who believe they have been harmed by excessive imports can request that the federal government assess the degree of damage to their industry. If a formal study concludes that producers have been harmed, the government may then impose additional tariffs, as it did in the case of lamb imports a few years back. "Special" safeguards operate a bit differently, and there are two kinds, value-based and volume-based. Value-based safeguards kick in according to a sliding scale whenever the imported price of a product falls below a specified level. These additional tariffs are automatic and remain effective until the import price rises above the specified level. For example, if American cheese could be landed in the US at a price of $0.64/lb., the US could impose a relatively small additional tariff of about $0.04/lb. on top of other tariffs.

Volume-based safeguards may come into play when the level of imports in a calendar year reaches some reference level—37 million lbs. in the case of American cheese. But rather than kick in automatically, someone has to request that they be imposed, and the government has to agree to do so. In August 2002, the National Milk Producers Federation, a trade association representing dairy farmers, called for the Secretary of Agriculture to impose volume-based safeguard tariffs on American-type cheese. Unlike "normal" safeguards, there is no need to prove injury or conduct a study to find out what level or type of remedy should be applied. The trigger quantity is based on a three-year moving average of all imports, both in-quota and over-quota, but the tariff imposed applies only to the over-quota imports. Thus, growth in imports is allowed, but the safeguards should help prevent large increases in imports in a given year. However, there are limits on the imposition of these tariffs, and therefore on their effectiveness. These volume-triggered tariffs only apply until the end of the calendar year in which they are imposed, and they start at the time they are authorized following the request. In addition, they don't apply to any shipments that are "on the water" at the time the tariffs are authorized. Given that it's November and it takes a few weeks by boat for cheese to reach the US, it is unlikely that they will affect many imports before they expire.

For American cheese, the various tariffs and safeguards, along with actual calendar-year imports through August of this year and last, are shown in Table 1. In-quota imports are subject to a tariff of 10 percent, or less than $0.15/lb. in a typical year. The tariff rate for over-quota imports is about three times as much, $0.48/lb. The import price would need to fall to $0.73/lb. before value-based safeguards could be applied, and it was well above that at $0.95 in the first eight months of 2002. The actual amount of imports through August was 42 million lbs., well above the volume-based trigger of 37 million lbs.

In the case of American cheese, over-quota imports (nearly all from New Zealand) have increased markedly in 2002 despite tariffs of $0.48/lb. and the threat of volume-based safeguards. This is due in part to lower cheese prices on the world market. The impact of American cheese imports on overall cheese and milk prices is likely to be minimal, even given the large increase from last year. However, given the low milk prices that dairy producers have seen this year, the growth in imports of "American" cheese from "non-American" sources adds a bit of insult to injury.

Table 1. Trade Policy and Imports for American Cheese, 2001-2002

		Imports, mil. lbs.						
Import Category	*Tariff Rate, \$/lb.*	*Jan-Aug 2001*	*Jan-Aug 2002*	*% change*	*Value-based trigger, \$/lb.*	*Actual import price, 2002, \$/lb.*	*Volume-based trigger, mil. lbs.*	*Volume-based tariff, \$/lb.*
In-quota	10.0%	3.8	3.7	-3.6%				
Over-quota	0.48	16.3	38.6	137.2%				
Overall		20.1	42.3	110.4%	0.73	0.95	37.0	0.16

More information on dairy trade policy will be available shortly at the Cornell Program on Dairy Markets and Policy website: www.dairy.cornell.edu under "Weblets."

May 2002

Developing a Dairy Marketing Plan

Mark Stephenson
Senior Extension Associate
Cornell Program on Dairy Markets and Policy

I teach a dairy marketing course at Cornell University. One topic thread that is woven throughout the semester is that although price risk in dairy markets is real, it can be managed. The only way to ultimately make good decisions about the adequacy of a milk price and the strategy employed to protect it is to remove emotions from the decision-making process. This is best done by the development and implementation of a marketing plan.

Creating a marketing plan does not need to be a difficult process. However, the process should generate a physical document that is your personal road map to price risk management. There is not "one recipe" for such a document, but there are several items that every good marketing plan should address. For instance, how vulnerable is your operation to the big price swings that we have seen in the past decade. A couple of numbers such as a debt-to-asset ratio and a debt coverage ratio will help you understand your vulnerability. Another assessment to be made is your personal tolerance to risk. If your business is quite solvent and you have a high tolerance to risk, a perfectly acceptable decision may be to just take what the cash market gives you. If either your business or your personality can't handle large price swings, then your marketing plan needs to be a bit more ambitious.

A marketing plan must also contain an understanding of your cash costs of production. This is often called your operating costs and it differs from the total costs of production, which further includes values for depreciation, returns to equity in your business and a return to your labor and management. Those costs have to be covered in the long-run, but in the short-run, it may make sense to produce milk at a milk price that doesn't allow you to replace capital items. However, locking in a milk price that is less than your cash costs of production never makes sense. You should be willing to gamble that the cash market may recover by the time you actually sell your milk rather than to assure yourself a loss on every hundredweight that you produce.

I suggest that you choose three price goals as triggers for action. The lowest price goal is your operating costs of production. Beyond mere business survival, a second reasonable price goal should include an adequate family living withdrawal, money for capital replacement, etc. A final "I want it all" price goal should adequately fund any other reasonable items such as off-farm retirement investments, college funds for your children, etc. With these goals in mind, you can begin the next step in the plan.

A futures market or a fixed price forward contract will not directly relate to your price goals. The Chicago Mercantile Exchange

(CME) has futures contracts and options for a class III or class IV milk price but you don't receive a either of those class prices as your milk check. Some forward contracts have been offered as blend price contracts, but very few producers sell milk at the standardized component values of a blend price and most receive some level of premiums. You need to understand how your milk price relates to a futures market or fixed price forward contract. That relationship is called a "basis". A simple comparison of your milk checks to the contract benchmark (class or blend prices) for the past couple of years will provide the mapping of your price goals to a needed contract price.

The final piece of a plan details what you will do when one of the triggers is met. Here it helps if you have some idea of how the market opinion is moving. If the CME class III price for September milk meets your highest price goal but has been moving upward, then you may want to purchase a put option which places a floor under the price but allows for additional upward movement. If the CME price meets your highest price goal but has been falling, you may want to sell a futures contract or consider a fixed price forward contract as a less expensive means of retaining the price goal. There are many different strategies that can be employed under different circumstances.

Finally, you should think about evaluating your marketing plan. After it has been in place for several months, ask yourself if it is performing as you would like it to or whether it needs to be modified. You should also consider how much time to spend on marketing your product. It will be more difficult to reach your price goals if you don't spend a good deal of time focusing on ways to lower or at least maintain your operating costs through good management practices.

Some, or perhaps many, of these marketing concepts may be new to you. As one producer told me, they may be confusing at first but it's not rocket science! Perhaps one of the best ways to tackle something like a marketing plan is to join a marketing club. There are several that are being started in the state, and we are helping to support the learning process with materials and guest speakers. Acquiring this type of knowledge may be best done in a group atmosphere. Ask your local Cooperative Extension office about forming or joining such a group or visit http://hortmgt.aem.cornell.edu/risk/newsletters/marketing_clubs.pdf for additional information about marketing clubs.

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (If applicable)	Author(s)
2004-05	Harvesting Change: A Planning Workbook for Apple Growers	($57.00)	Sheils, C. and A. DeMarree
2004-04	Harvesting Change: New York Apple Growers Share Their Decision-Making Strategies	($17.00)	Sheils, C., Gott, D., DesCartes, M., McGonigal, J., Staehr, E and R. Maltz
2004-03	Do I Need Crop Insurance? Self evaluation crop insurance as a risk management tool in New York State	($12.00)	Richards, S.
2004-02	Business Transfer Guide: Junior Generation	($12.00)	Richards, S.
2004-01	Business Transfer Guide: Senior Generation	($12.00)	Richards, S.
2003-22	New York Economic Handbook 2004	($7.00)	Extension Staff
2003-21	Dairy Farm Business Summary, New York Dairy Farm Renters, 2002		Knoblauch, W. and Putnam, L.
2003-20	Dairy Farm Business Summary, Western and Central Plateau Region, 2002	($10.00)	Knoblauch, W., Putnam, L., Karszes, J., Allhusen, G., Grace, J., Petzen, J. and Dufresne, A.
2003-19	Health Care Planning for Farm Businesses	($15.00)	Richards, S.
2003-18	Dairy Farm Business Summary, New York Small Herd Farms, 80 Cows or Fewer, 2002		Knoblauch, W., Putnam, L., Kiraly, M. and Karszes, J.
2003-17	Dairy Farm Business Summary, Intensive Grazing Farms, New York, 2002		Conneman, G., Grace, J., Karszes, J., Benson, A., Putnam, L., Staehr, E., Degni, J. and Barry, J.
2003-16	Income Tax Management and Reporting For Small Businesses and Farms	($15.00)	Bouchard, G. and Cuykendall, C.
2003-15	Leasing of Natural Gas Drilling Rights on Public and Private Land in New York		Ziegenfuss, K. and Chapman, D.

Paper copies are being replaced by electronic Portable Document Files (PDFs). To request PDFs of AEM publications, write to (be sure to include your e-mail address): Publications, Department of Applied Economics and Management, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (*http://aem.cornell.edu/outreach/materials.htm*) for a more complete list of recent bulletins.